

Inherited disorders (cystic fibrosis, polydactyly)

Q1. (2021)

0 6 . 3 Polydactyly is a different inherited disorder.

Two parents do **not** have any alleles for polydactyly in their ordinary body cells.

These parents produced a child with polydactyly.

Explain how polydactyly suddenly occurred in this family.

[4 marks]

Q2. (2023)

0 1 . 5 Embryos can be screened for the alleles that cause inherited disorders.

Give **two** advantages of embryo screening.

[2 marks]

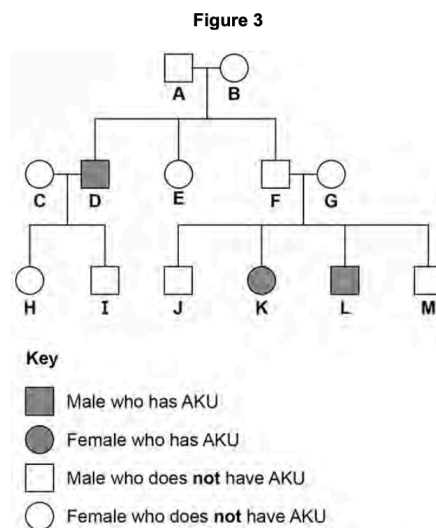
1 _____

2 _____

Q3. (2024)

0 3 AKU is a genetic disorder.

Figure 3 shows the inheritance of AKU in one family.



0 3 . 4 A mutation is a change in a gene.

People who have AKU have a mutation that causes the production of a non-functioning enzyme.

Enzymes are proteins.

Suggest how a mutation can result in the production of a non-functioning enzyme.

[2 marks]

Q4. (2024)

03.6 Embryos can be screened to detect inherited disorders.

Give **two** arguments **against** embryo screening.

Do **not** refer to religion in your answer.

[2 marks]

1 _____

2 _____
